

ABSTRACT

A verification system for verifying that a software system satisfies a property by extracting a verification model from implementation level source code is provided. The extraction proceeds by translating source strings generated from the source code into strings belonging to a target language, and generating a verification model in the target language. The translation is guided by explicit mappings in a lookup table, optional user-defined data restrictions, and default type rules. Standard logic model checking is performed on the extracted verification model to check that the system satisfies (or can possibly violate) any given explicit or implicit logic system property.